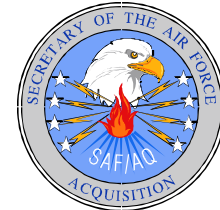




R-TOC Pilot Program B-1



SPD -- Col. Ben McCarter

TOC CATEGORY:

Mod Program

Overview

Baseline TOC/TOC

Tool

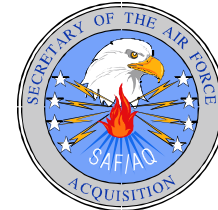
Reduction Strategy

Implementation

Vehicle

Barriers

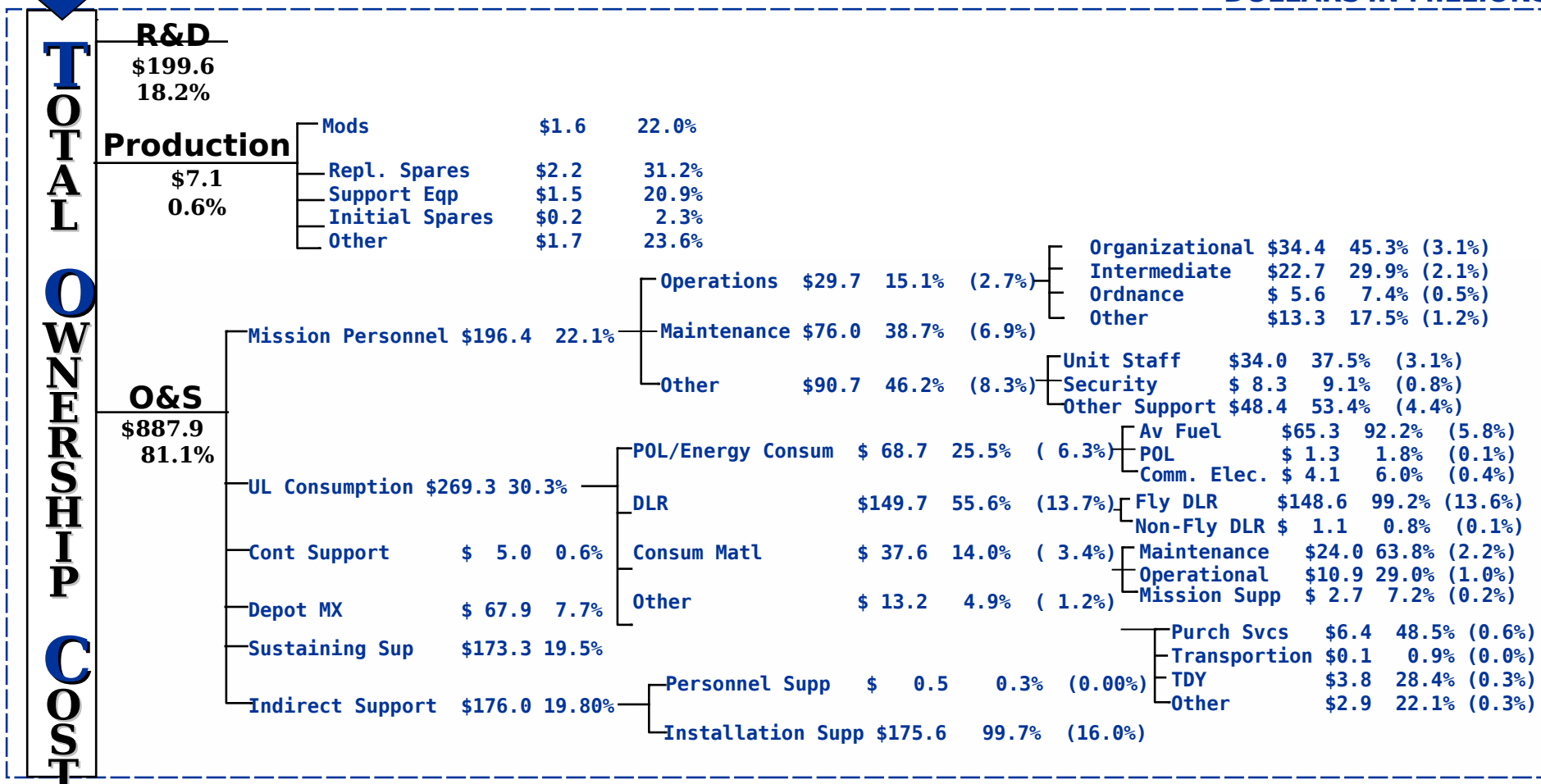




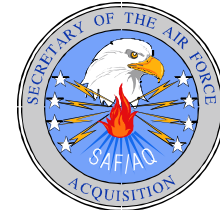
B-1 R-TOC Baseline

\$1,094.6

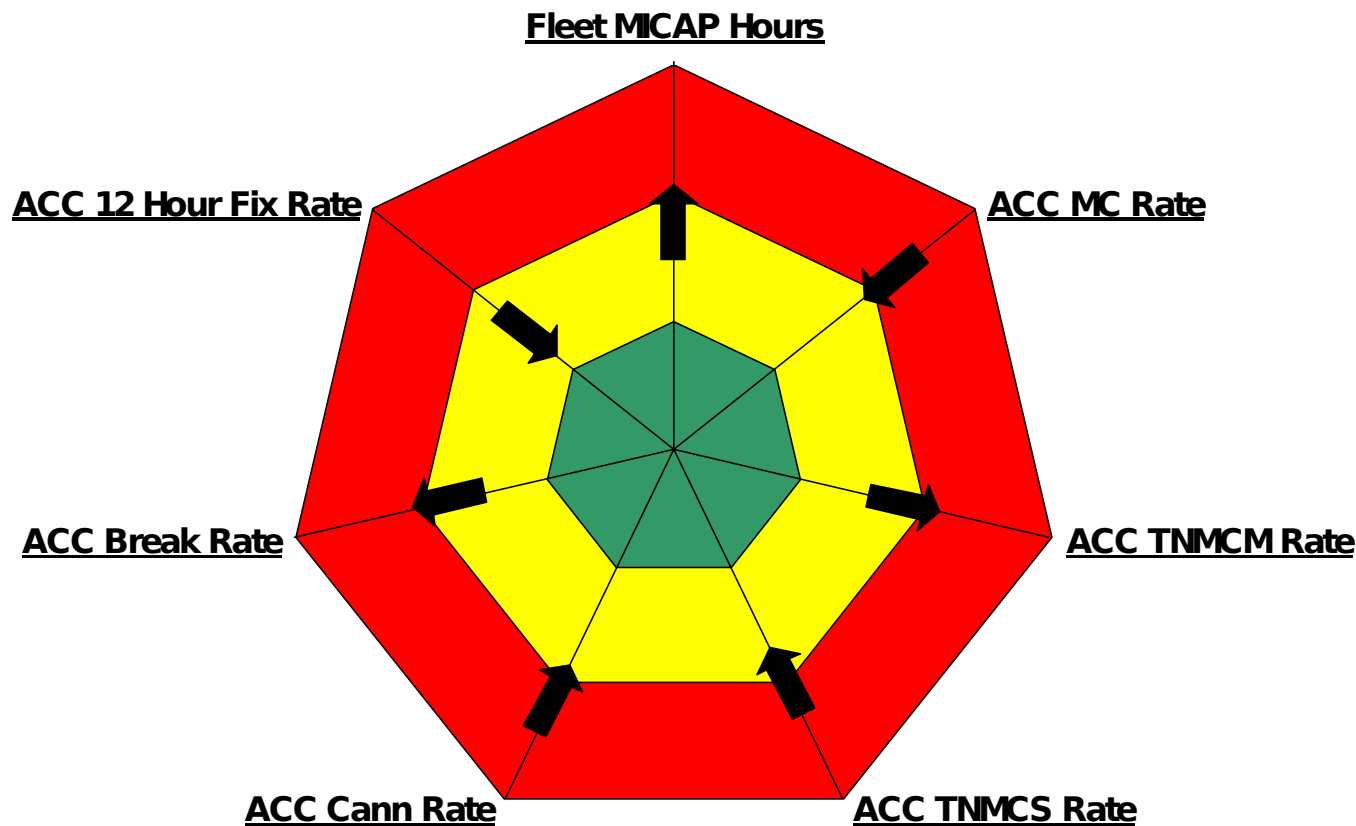
DOLLARS IN MILLIONS

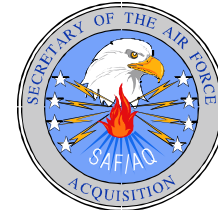


O&S costs are from ACC Cost of Ownership data for FY97.
R&D and Procurement costs are from AFTOC FY97 data.



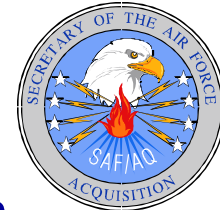
B-1 Spider Diagram





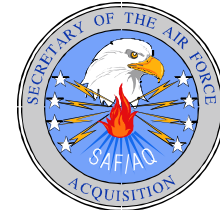
Methodology

- 3 Methods to Reduce Total Ownership Costs
 - Modify Business Practices
 - Modify Weapon System
 - CMUP
 - Sustainment
 - Operational Changes that can affect savings



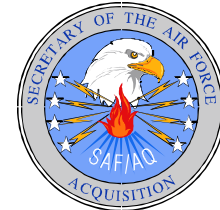
B-1 Reduction in Total Ownership Cost Program

- Acquisition Reform
 - TOPS
 - CAIV
- CMUP Programmed Modifications
 - BLOCK's D, E and F
- Sustaining Engineering Modifications
 - LANCER (Engines)
 - EEPROMs
 - CDDS
 - Supportability Improvement Program (SIP)
- COO Red Team/CRIPT Initiatives



Acquisition Reform in R-TOC

- Teaming On Proposals - TOPs
 - Reduces the time from requirements definition to contract award
 - From an average 400 days down to 261 days
 - Reduced manpower effort, both Contractor and Government
- Cost As an Independent Variable - CAIV
 - DSUP CAIV Effort Very Successful
 - Analyzed ALQ-161 & pod solutions
 - Modified IDECM-based architecture
 - Reduced number of LRUs - 67%
 - Reduced program cost ~ \$250M
 - O&S savings - \$50M/Yr (vs ALQ-161)
 - Computers went through a similar process

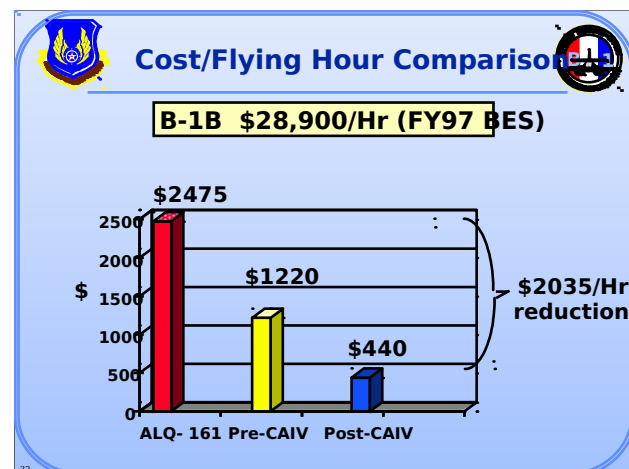
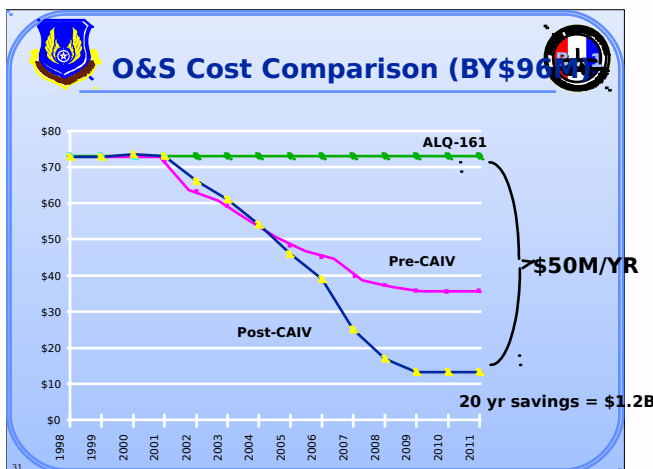


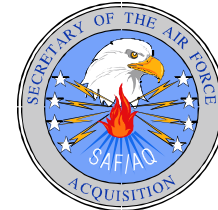
B-1B DSUP - A CAIV Success

	<u>ALQ-161</u>	<u>DSUP - Pre-CAIV</u>	<u>DSUP - Post-CAIV</u>
Cost Est	N/A	\$989M	
\$747M			
LRUs	120	93	34
WT	5284	2413	1000
MTBF	18 HRS	62 HRS	112
HRS			

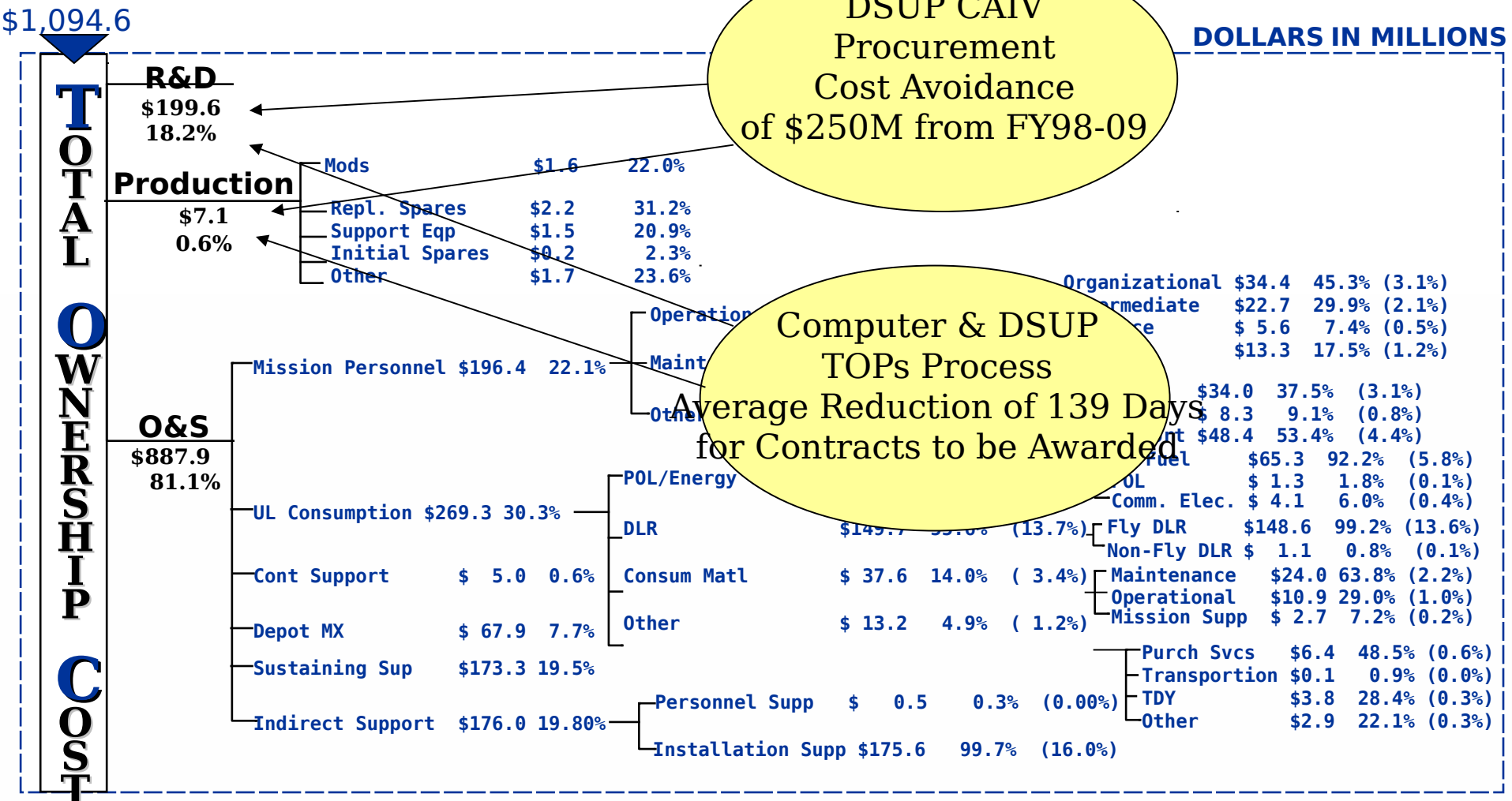
RQMTS

- ✓ Jamming
- ✓ SA
- ✓ Interop
- ✓ Nuke
- ✓ R&M
- ✓ Growth

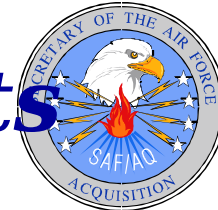




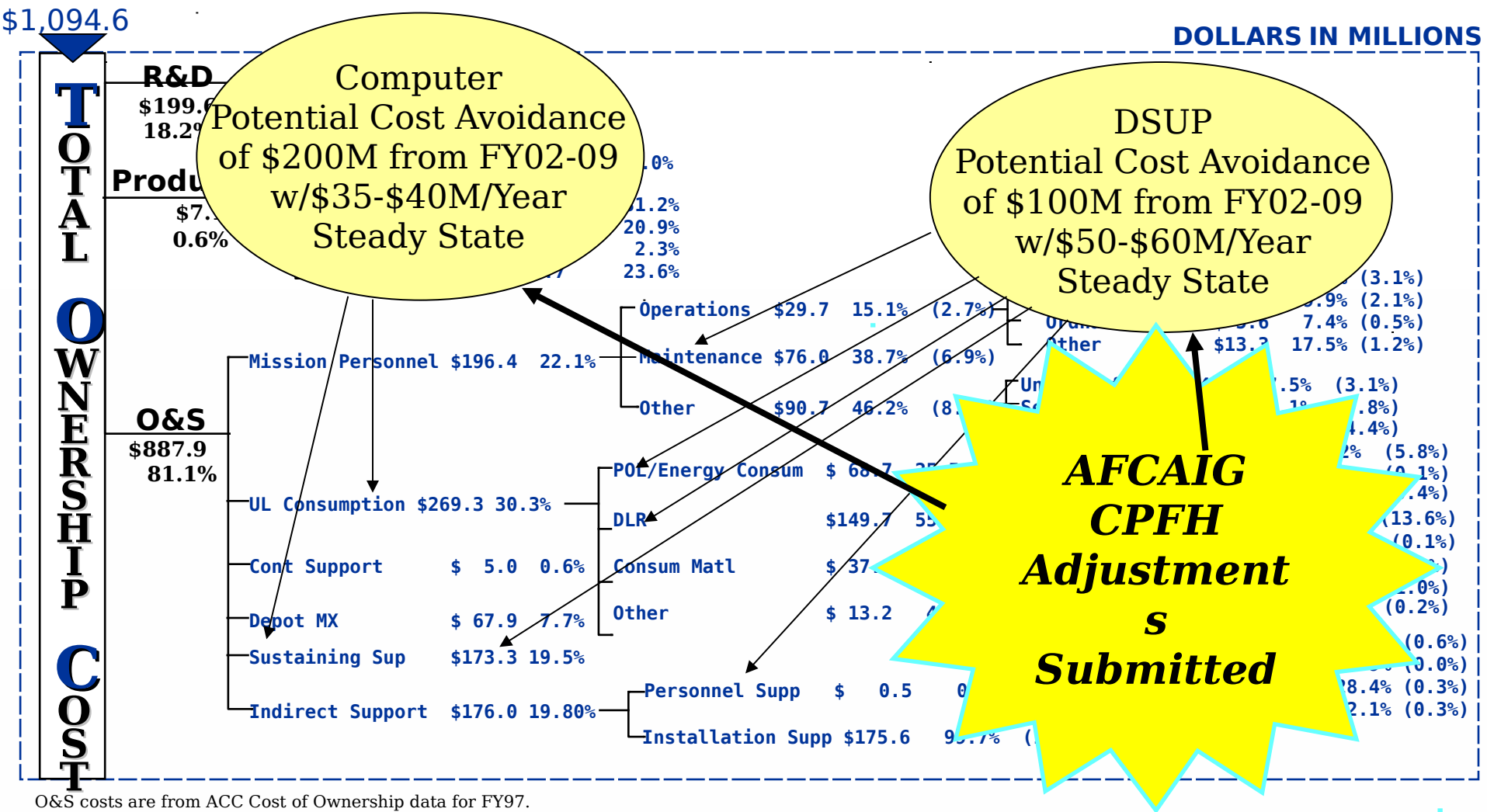
B-1 Acquisition Impacts to R-TOC Baseline



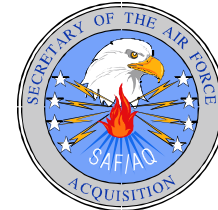
O&S costs are from ACC Cost of Ownership data for FY97.
R&D and Procurement costs are from AFTOC FY97 data.



Programmed Mods O&S Impacts to B-1 R-TOC Baseline



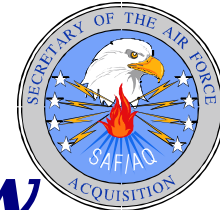
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Sustaining Engineering Modifications

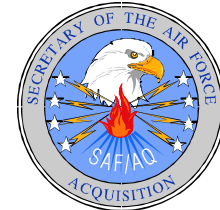
- Lancer (Engine Mods) - \$3.9M/Yr
- CITS Deployable Diagnostic System (CCDS) - \$1.5M/Yr
- EEPROMs - \$5.3M/Yr
- 4 Year to 5 Year Programmed Depot Maint. (PDM) - \$17.9M/Yr Budget Reduction Starting FY99
- 22 Tech Order procedural changes from our Sustaining Engineering's Supportability Improvement Program (SIP) - \$6.5M/Yr

All the above efforts are in various stages of being fielded and full cost avoidance should be realized during FY00



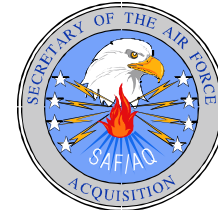
B-1 Cost Reduction Integrated Product Team (CRIPT) Overview

- B-1 Cost of Ownership IPT Established Aug 97
 - SPO, PEO, ACC, ANG, Contractors, AF Depots
 - Goal
 - Create a TOC Conscious Culture in B-1 Community
 - Integrate with other SPO processes
- Identified over 50 Initiatives
 - Four Initiatives Implemented
 - Six Proposals Presented to COMACC - “Quick Kill” Implementation
 - Tentatively Approved
 - COMACC: “Give Me More”
- B-1 Added as Air Force R-TOC Pilot Program

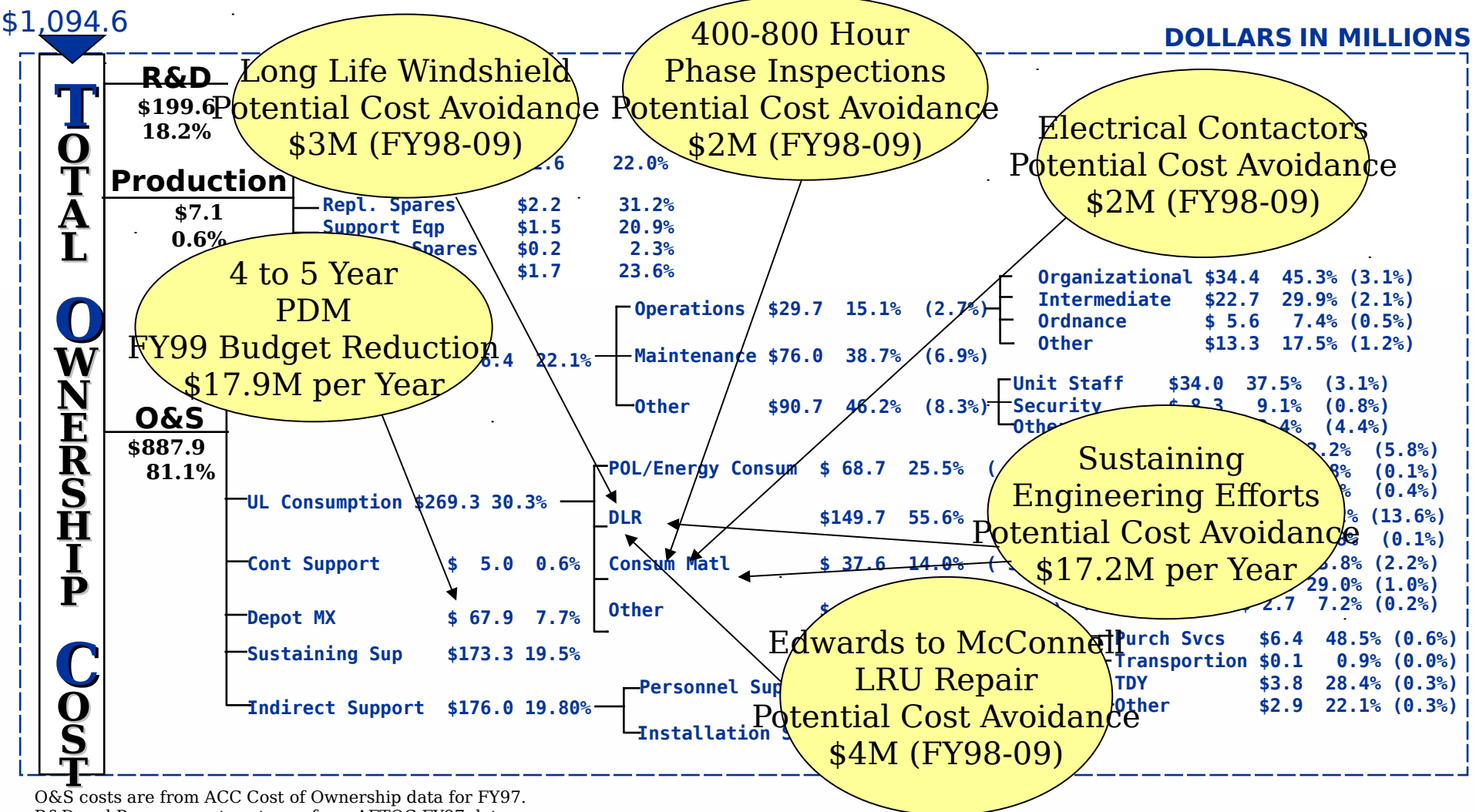


B-1 Cost Reduction Integrated Product Team (CRIPT)

- COO Red Team/CRIPT Initiatives
 - 51 Initiatives in review
 - Four Implemented
 - Long Life Windshield
 - 400-800 Hour Phase Inspections
 - Electrical Contactor
 - Edwards to McConnell LRU Repair
 - 6 Presented to COMACC for Recommended Implementation
- CRIPT Cost Tracking/Reporting Database in Work
- WEB Page: <https://boneweb.cal.boeing.com/>



Implemented Initiatives Impacts to B-1 R-TOC Baseline



O&S costs are from ACC Cost of Ownership data for FY97.
R&D and Procurement costs are from AFTOC FY97 data.



Proposed Initiatives (Cost Avoidance FY99-09)

**1. ALQ 161 - Load Mgt
\$52M**

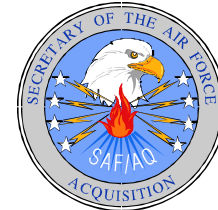
2. ALQ 161 - Tailoring to MNS \$ 9M

**3. ALQ 161 - PFS for ECM Sim
\$73M**

**4. Mil Power Takeoffs
\$30M**

**5. Reduced Fuel Loads
\$25M**

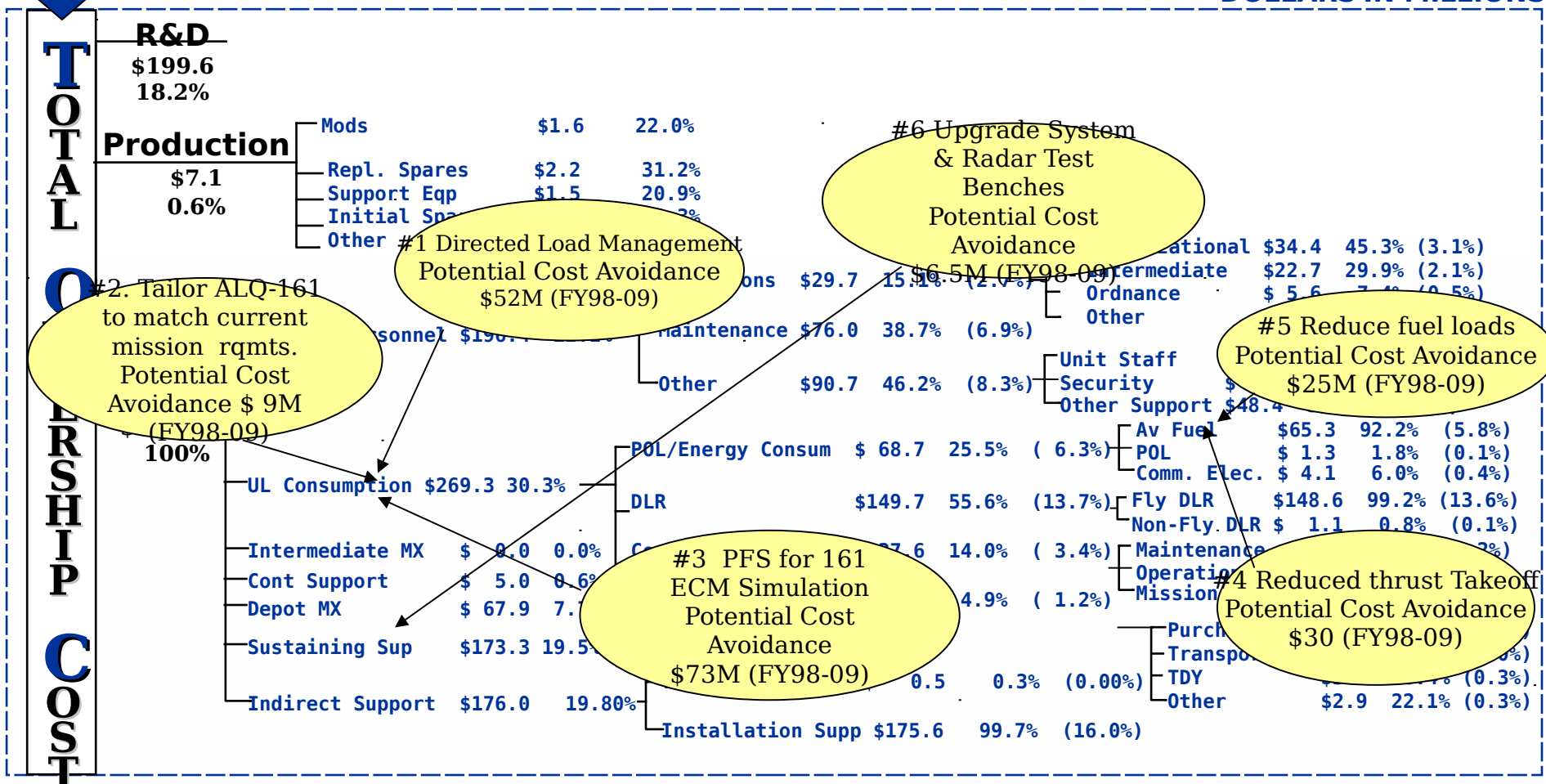
**6. Upgrade RTB/STB's
\$6.5M**



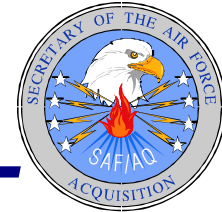
Proposed Initiatives Impacts to B-1 R-TOC Baseline

\$1,094.6

DOLLARS IN MILLIONS



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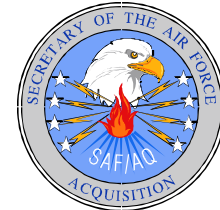


CRIPT is the B-1's Implementation Vehicle for R- TOC

- Aug 97 Set-up IPT With SPO, PEO, Air Staff, ACC, Contractors
- Goal Is to Develop, Understand, Articulate
 - Current TOC and Recent Changes/Trends
 - Projected TOC Based on Programmed Activities
 - Additional Viable TOC Reduction Initiatives
 - Near Term, Longer Term
- 51 Initiatives Identified to Date
- WEB Page is <https://boneweb.cal.boeing.com/>
- CRIPT Cost Tracking/Reporting Database in work



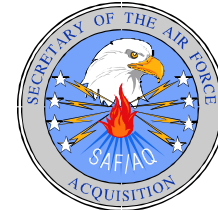
CRIPT Database for Cost Tracking/Reporting Initiatives



- Project Tracker Data base built to track RM&S Improvement Projects
- Stores detailed Background/Solution/Status data
- Tracks project status category
- Store detailed funds data (investment and savings)
- Stores ABIDES baseline data
- Produces Action Plans, Delta Cost charts, and updated web pages



CRIPT Database for Cost Tracking/Reporting Initiatives



Project Data Entry Form

Combined Project Data

[Main Menu](#)[Show All Records](#)

Date of Last Revision: 29-Jul-97

SIP Number:

Project Name: Radar Interface Test Equipment

Project Type: New Support Equipment

ROI: 2.0

Background: The Offensive Radar System (ORS) has experienced excessive Cannot Duplicate (CND)/No Defect rates, resulting in high work loads and backlogs on the IATE.

O/I Man-hr Savings(Hrs): 11,144

Annual Cost Savings(\$M): 7.127

Mod Number: MIP Number: **Solution:** Purchase the Radar Interface Test Set (RITE) for flight line testing of the ORS.**Implemented:** ☐ **Status** **Disapproved:** ☐ **In Review:** ☐ **Action Required:** ☒AFTO 22 Number: **Action Plan:**
Status: Further action required. RITE has been replaced with a Boeing test set. We are going to incorporate the updated cost data from Boeing EA and carry this as a "further

POC: Lewis Daley

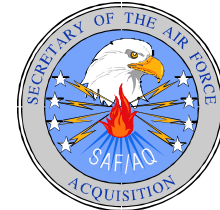
Funds Requirements and Cost Savings

Funds Type: 3010/1000

FY (yyyy):	1998	1999	2000	2001	2002	2003
Amount (\$M):	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000
	2004	2005	2006	2007	2008	2009
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	2010	2011	2012	2013	2014	2015
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	2016	2017	2018	2019	2020	2021
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	2022	2023	2024	2025	2026	2027
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000



Programmed Mods Projected Impacts (FY99-09)

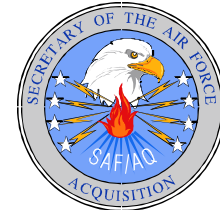


- 1. GPS/COMM/JDAM/1760 (\$7M)**
- 2. Computer Upgrade
\$200M**
- 3. Defensive System Upgrade
\$100M**
- 4. Long Life Windshield 3M \$**
- 5. Phase Inspections 2M \$**
- 6. Edwards to McConnell LRU Repair \$
4M**

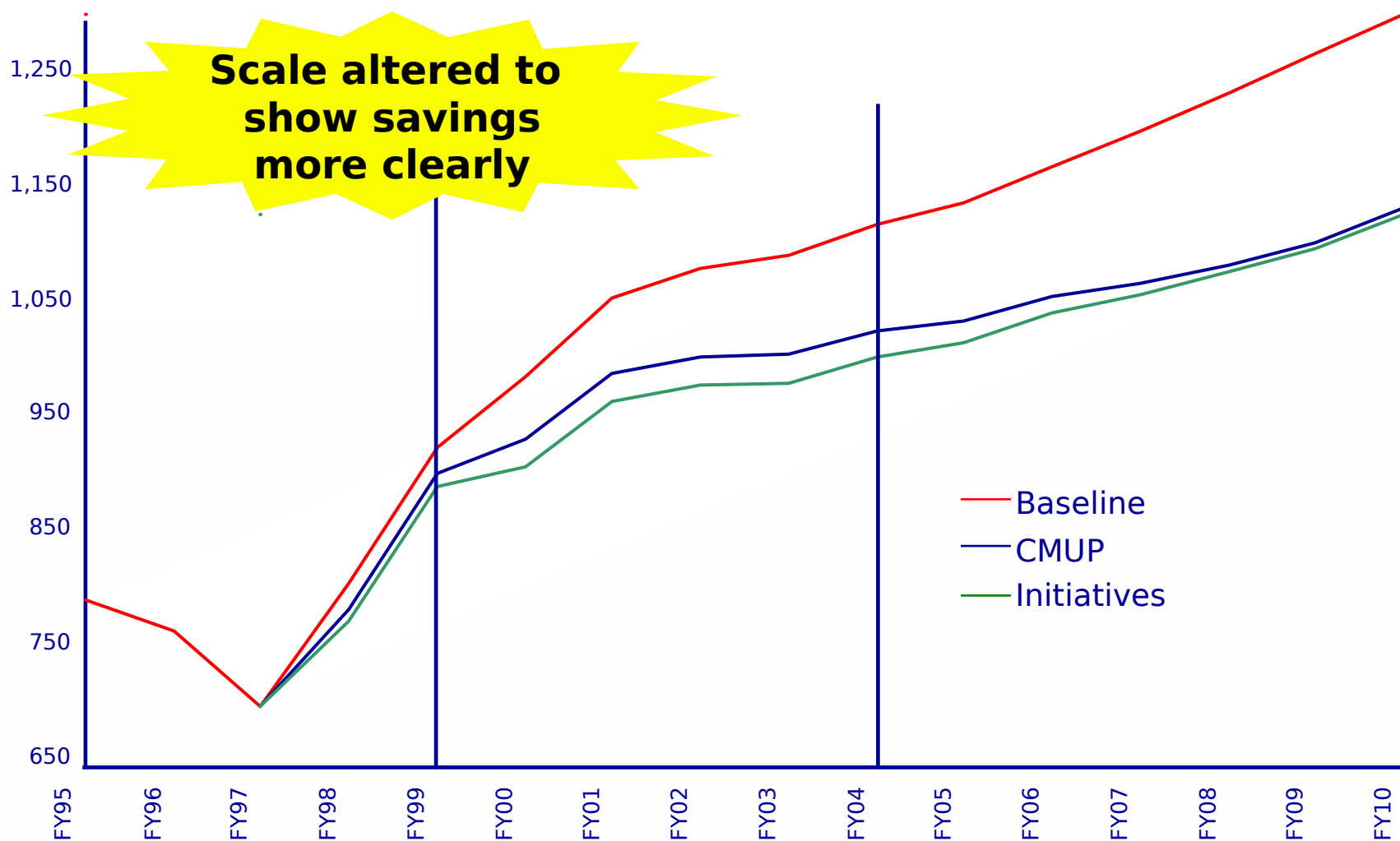


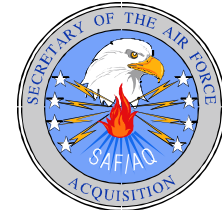
Proposed Initiatives (Cost Avoidance FY99-09)

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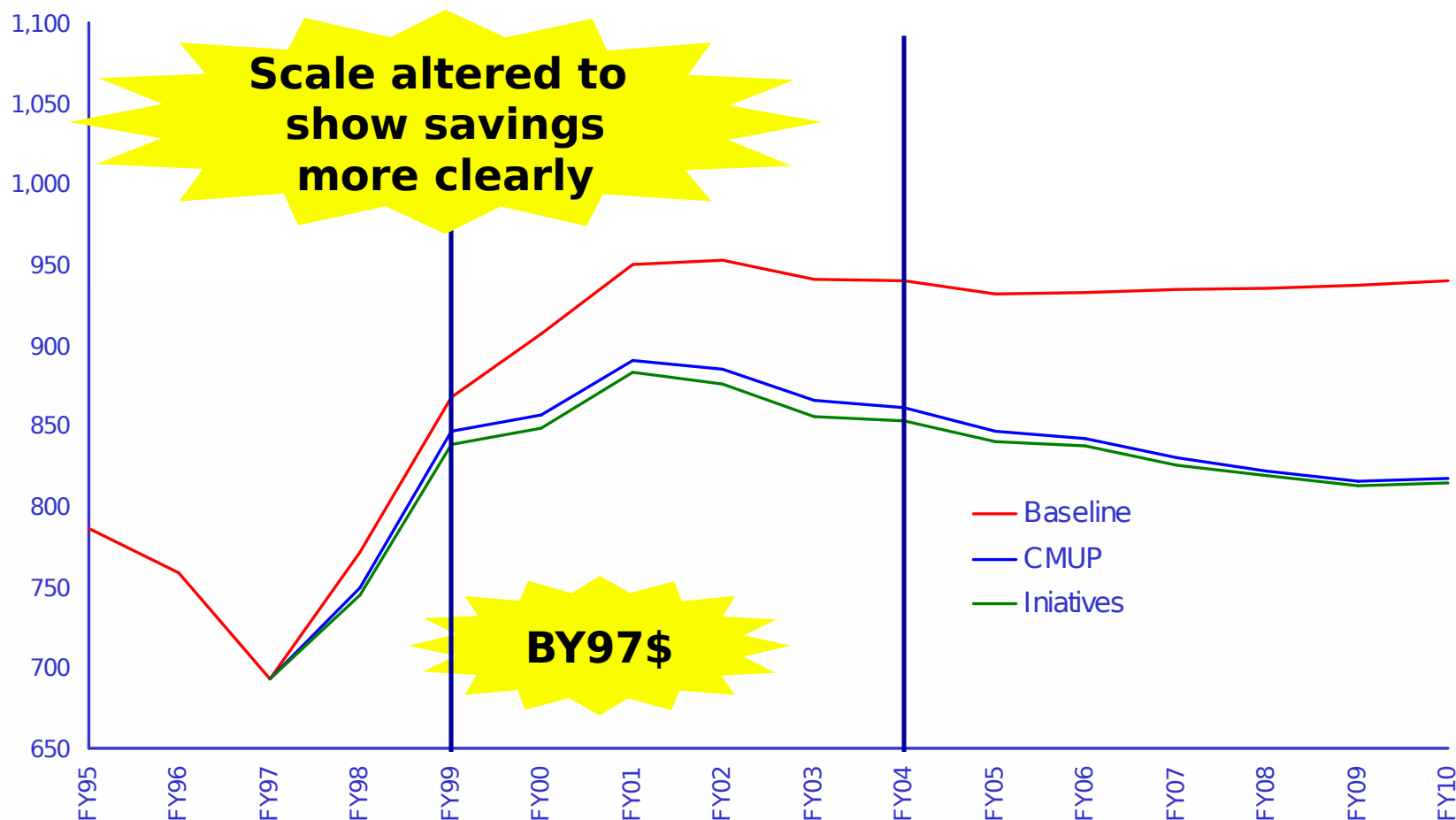


Potential Impacts on B-1 Cost of Ownership



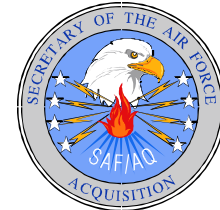


Potential Impacts on B-1 Cost of Ownership

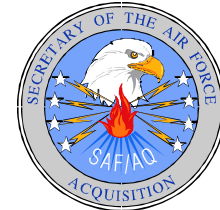




B-1 TOC Summary (Cost Avoidance FY98-09)



- CAIV \$250M
 - Programmed Mods
\$300M
 - Implemented Initiatives
\$362M
 - Proposed Initiatives (Up To)
\$178M
- (Up To) \$1090M



Future Options

F-16/B-1/B-2? Common Radar System

- Reduce cost of software & maintenance

Consolidation of Software Lab Facilities

- Reduce cost of software development

Appliqué

- Exterior paint replacement option

Boeing “Fast Track” Initiatives

- Leveraging IR&D funds on top drivers



R-TOC Implementation Barriers

- Lack of Investment Funding
 - Tight money leads to rather 'pay Paul later than Peter now' attitude
- Color of Money
 - The 3400 Money Pot
 - Makes it difficult/if not impossible to track Savings
 - Can't use Savings for Investment Funding
- Challenge of Changing Culture



R-TOC Implementation Barriers

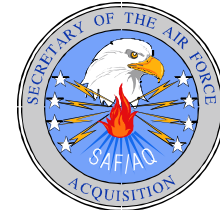
Funding Stability_

Causes

- Taxes
 - Congressional Reductions
 - Small Business Innovation Research
 - Anser
- PBDs - Program Budget Decisions
- Reprogrammings
 - Omnibus

Effects

- Delay in Capability and Savings
- Increased Investment Funding



“Think TOC in all you do”

Bad to the BONE



**Destroy Stuff...
...CHEAP!**

**Any Dollar Anyone Of Us Saves
Benefits All Of Us**